

Supplementary Data 3

Cell adhesion		
Symbol	Gene name	Log2 (fold change)
Atp1b2	ATPase, Na+/K+ transporting, beta 2 polypeptide(Atp1b2)	-0.209579
Cd24a	CD24a antigen(Cd24a)	0.208692
Cd34	CD34 antigen(Cd34)	-0.85533
Cd47	CD47 antigen (Rh-related antigen, integrin-associated signal transducer)(Cd47)	-0.193603
Cd63	CD63 antigen(Cd63)	-0.22166
Cd9	CD9 antigen(Cd9)	-0.22731
Cd93	CD93 antigen(Cd93)	-1.0693
Cd99l2	CD99 antigen-like 2(Cd99l2)	0.336254
Epha8	Eph receptor A8(Epha8)	0.320632
Fat4	FAT atypical cadherin 4(Fat4)	0.230342
Frem2	Fras1 related extracellular matrix protein 2(Frem2)	0.265503
Radil	Ras association and DIL domains(Radil)	0.270472
Adgre5	adhesion G protein-coupled receptor E5(Adgre5)	-0.580957
Amigo2	adhesion molecule with Ig like domain 2(Amigo2)	-0.41596
Afdn	afadin, adherens junction formation factor(Afdn)	0.202055
Acan	aggrecan(Acan)	-0.57369
Bcam	basal cell adhesion molecule(Bcam)	-0.364333
Bcan	brevican(Bcan)	0.198962
Cdh12	cadherin 12(Cdh12)	-0.261253
Cdh20	cadherin 20(Cdh20)	0.281162
Cdh8	cadherin 8(Cdh8)	-0.225513
Cdh24	cadherin-like 24(Cdh24)	0.489012
Ctnnal1	catenin (cadherin associated protein), alpha-like 1(Ctnnal1)	0.270472
Cdon	cell adhesion molecule-related/down-regulated by oncogenes(Cdon)	0.285659
Cx3cl1	chemokine (C-X3-C motif) ligand 1(Cx3cl1)	-0.186984
Col5a1	collagen, type V, alpha 1(Col5a1)	0.188501
Col6a1	collagen, type VI, alpha 1(Col6a1)	-0.314202
Col6a2	collagen, type VI, alpha 2(Col6a2)	-0.668208
Col19a1	collagen, type XIX, alpha 1(Col19a1)	0.324061
Col15a1	collagen, type XV, alpha 1(Col15a1)	0.699774
Cntn2	contactin 2(Cntn2)	0.483002
Cntn3	contactin 3(Cntn3)	0.272548
Cntnap5a	contactin associated protein-like 5A(Cntnap5a)	-0.244349
Emb	embigin(Emb)	-0.326487
Fn1	fibronectin 1(Fn1)	0.312679
Flrt2	fibronectin leucine rich transmembrane protein 2(Flrt2)	0.207083

Gpnmb	glycoprotein (transmembrane) nmb(Gpnmb)	-1.14048
IgSF9b	immunoglobulin superfamily, member 9B(IgSF9b)	-0.206615
Itgav	integrin alpha V(Itgav)	0.229906
Lama5	laminin, alpha 5(Lama5)	0.20888
Lamc2	laminin, gamma 2(Lamc2)	-0.526442
Lmln	leishmanolysin-like (metallopeptidase M8 family)(Lmln)	0.211086
Megf10	multiple EGF-like-domains 10(Megf10)	0.254789
Nov	nephroblastoma overexpressed gene(Nov)	-0.180737
Negr1	neuronal growth regulator 1(Negr1)	-0.180157
Parvb	parvin, beta(Parvb)	-0.268398
Pnn	pinin(Pnn)	0.181257
Pkp4	plakophilin 4(Pkp4)	-0.250498
Ptpnu	protein tyrosine phosphatase, receptor type, U(Ptpnu)	0.2274
Pcdh19	protocadherin 19(Pcdh19)	0.217846
Ret	ret proto-oncogene(Ret)	-0.284101
Thbs3	thrombospondin 3(Thbs3)	0.384423
Thy1	thymus cell antigen 1, theta(Thy1)	-0.227688
Zyx	zyxin(Zyx)	-0.210285
Atp1b2	ATPase, Na+/K+ transporting, beta 2 polypeptide(Atp1b2)	-0.209579

Positive regulation of cytosolic calcium ion concentration

Symbol	Gene name	Log2 (fold change)
Cd24a	CD24a antigen(Cd24a)	0.208692
Gpr6	G protein-coupled receptor 6(Gpr6)	-0.693168
Gpr3	G-protein coupled receptor 3(Gpr3)	-0.379597
Swap70	SWA-70 protein(Swap70)	0.22232
Adcy5	adenylate cyclase 5(Adcy5)	0.18128
Adcyap1	adenylate cyclase activating polypeptide 1(Adcyap1)	-0.364772
Adra1b	adrenergic receptor, alpha 1b(Adra1b)	-0.34772
Adm	adrenomedullin(Adm)	-0.893345
Agt	angiotensinogen (serpin peptidase inhibitor, clade A, member 8)(Agt)	-0.644347
Cib2	calcium and integrin binding family member 2(Cib2)	-0.291013
Ccl28	chemokine (C-C motif) ligand 28(Ccl28)	-1.97529
Cckbr	cholecystokinin B receptor(Cckbr)	-0.562344
F2r	coagulation factor II (thrombin) receptor(F2r)	-0.221243
Crhr1	corticotropin releasing hormone receptor 1(Crhr1)	-0.311301
Gja1	gap junction protein, alpha 1(Gja1)	-0.196478
Gck	glucokinase(Gck)	-0.33515
Itgav	integrin alpha V(Itgav)	0.229906
Npy2r	neuropeptide Y receptor Y2(Npy2r)	-0.230785
Oxtr	oxytocin receptor(Oxtr)	0.267845
Pth1r	parathyroid hormone 1 receptor(Pth1r)	-0.735892

Pdgfra	platelet derived growth factor receptor, alpha polypeptide(Pdgfra)	0.288914
P2ry1	purinergic receptor P2Y, G-protein coupled 1(P2ry1)	-0.317979
P2ry2	purinergic receptor P2Y, G-protein coupled 2(P2ry2)	-0.415118
Trhr	thyrotropin releasing hormone receptor(Trhr)	-0.253903
Trpc6	transient receptor potential cation channel, subfamily C, member 6(Trpc6)	-0.440269
Nervous system development		
Symbol	Gene name	Log2 (fold change)
Cables1	CDK5 and Abl enzyme substrate 1(Cables1)	-0.281238
Epha8	Eph receptor A8(Epha8)	0.320632
Gpsm1	G-protein signalling modulator 1 (AGS3-like, C. elegans)(Gpsm1)	0.267821
Lhx6	LIM homeobox protein 6(Lhx6)	0.341398
Mdga1	MAM domain containing glycosylphosphatidylinositol anchor 1(Mdga1)	0.389912
Rapgef2	Rap guanine nucleotide exchange factor (GEF) 2(Rapgef2)	0.18849
Srgap2	SLIT-ROBO Rho GTPase activating protein 2(Srgap2)	0.206012
Sox11	SRY (sex determining region Y)-box 11(Sox11)	0.227096
Adcyap1	adenylate cyclase activating polypeptide 1(Adcyap1)	-0.364772
Arx	aristaless related homeobox(Arx)	0.305155
Bdnf	brain derived neurotrophic factor(Bdnf)	-0.470373
Cdc20	cell division cycle 20(Cdc20)	0.353063
Chn1	chimerin 1(Chn1)	-0.313646
Crmp1	collapsin response mediator protein 1(Crmp1)	0.185276
Cntn3	contactin 3(Cntn3)	0.272548
Dpysl3	dihydropyrimidinase-like 3(Dpysl3)	0.308843
Dpysl5	dihydropyrimidinase-like 5(Dpysl5)	0.227129
Dcx	doublecortin(Dcx)	0.261673
Ect2	ect2 oncogene(Ect2)	0.250271
Efnb1	ephrin B1(Efnb1)	0.322353
Grik1	glutamate receptor, ionotropic, kainate 1(Grik1)	0.285063
Hdac9	histone deacetylase 9(Hdac9)	-0.278945
Islr2	immunoglobulin superfamily containing leucine-rich repeat 2(Islr2)	0.194081
Igfbp9b	immunoglobulin superfamily, member 9B(Igfbp9b)	-0.206615
Itm2c	integral membrane protein 2C(Itm2c)	-0.254432
Mtss1	metastasis suppressor 1(Mtss1)	0.190135
Myt1	myelin transcription factor 1(Myt1)	0.266333
Nes	nestin(Nes)	0.370533
Nrn1	neuritin 1(Nrn1)	-0.308931
Nav1	neuron navigator 1(Nav1)	0.242038

Nrbp2	nuclear receptor binding protein 2(Nrbp2)	0.265687
Nr4a2	nuclear receptor subfamily 4, group A, member 2(Nr4a2)	-0.279153
Olig2	oligodendrocyte transcription factor 2(Olig2)	0.245334
Ophn1	oligophrenin 1(Ophn1)	0.20499
Plxnb3	plexin B3(Plxnb3)	-0.774452
Ret	ret proto-oncogene(Ret)	-0.284101
Sema3e	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3E(Sema3e)	-0.349043
Sema4b	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4B(Sema4b)	0.206854
Scn2b	sodium channel, voltage-gated, type II, beta(Scn2b)	-0.190638
Stmn1	stathmin 1(Stmn1)	0.194703
Zic1	zinc finger protein of the cerebellum 1(Zic1)	-0.346633
Negative regulation of neuron apoptotic process		
Symbol	Gene name	Log2 (fold change)
Bok	BCL2-related ovarian killer(Bok)	-0.23007
Cebpb	CCAAT/enhancer binding protein (C/EBP), beta(Cebpb)	-0.387441
Cited1	Cbp/p300-interacting transactivator with Glu/Asp-rich carboxy-terminal domain 1(Cited1)	-0.51851
Faim2	Fas apoptotic inhibitory molecule 2(Faim2)	-0.265052
Pcp4	Purkinje cell protein 4(Pcp4)	-0.301547
Xrcc2	X-ray repair complementing defective repair in Chinese hamster cells 2(Xrcc2)	0.269076
Adora2a	adenosine A2a receptor(Adora2a)	-0.284827
Agt	angiotensinogen (serpin peptidase inhibitor, clade A, member 8)(Agt)	-0.644347
Birc5	baculoviral IAP repeat-containing 5(Birc5)	0.315857
Bdnf	brain derived neurotrophic factor(Bdnf)	-0.470373
Cln3	ceroid lipofuscinosis, neuronal 3, juvenile (Batten, Spielmeyer-Vogt disease)(Cln3)	-0.275845
F2r	coagulation factor II (thrombin) receptor(F2r)	-0.221243
Dlx1	distal-less homeobox 1(Dlx1)	0.38264
Draxin	dorsal inhibitory axon guidance protein(Draxin)	0.238541
Itsn1	intersectin 1 (SH3 domain protein 1A)(Itsn1)	0.274784
Kif14	kinesin family member 14(Kif14)	0.288734
Lgmn	legumain(Lgmn)	-0.203377
Mt1	metallothionein 1(Mt1)	-0.217934
Msh2	mutS homolog 2(Msh2)	-0.213602
Nes	nestin(Nes)	0.370533
Nefl	neurofilament, light polypeptide(Nefl)	-0.24112
Nrbp2	nuclear receptor binding protein 2(Nrbp2)	0.265687

Nr4a2	nuclear receptor subfamily 4, group A, member 2(Nr4a2)	-0.279153
Positive regulation of cell migration		
Symbol	Gene name	Log2 (fold change)
Ets1	E26 avian leukemia oncogene 1, 5' domain(Ets1)	0.253717
Apc	adenomatosis polyposis coli(Apc)	0.311095
Adra2a	adrenergic receptor, alpha 2a(Adra2a)	0.205162
Bmp4	bone morphogenetic protein 4(Bmp4)	-0.338676
Cx3cl1	chemokine (C-X3-C motif) ligand 1(Cx3cl1)	-0.186984
F2r	coagulation factor II (thrombin) receptor(F2r)	-0.221243
Egfr	epidermal growth factor receptor(Egfr)	0.283762
Fn1	fibronectin 1(Fn1)	0.312679
Gcnt2	glucosaminyl (N-acetyl) transferase 2, I-branching enzyme(Gcnt2)	-0.495263
Gpnmb	glycoprotein (transmembrane) nmb(Gpnmb)	-1.14048
Hbegf	heparin-binding EGF-like growth factor(Hbegf)	0.270298
Hgf	hepatocyte growth factor(Hgf)	0.423115
Itgav	integrin alpha V(Itgav)	0.229906
Lamc2	laminin, gamma 2(Lamc2)	-0.526442
Mmp14	matrix metallopeptidase 14 (membrane-inserted)(Mmp14)	0.207178
Map2k1	mitogen-activated protein kinase kinase 1(Map2k1)	-0.23032
Myadm	myeloid-associated differentiation marker(Myadm)	-0.290833
Myo1c	myosin IC(Myo1c)	0.212708
Mylk	myosin, light polypeptide kinase(Mylk)	-0.397011
Pdgfra	platelet derived growth factor receptor, alpha polypeptide(Pdgfra)	0.288914
Pdgfd	platelet-derived growth factor, D polypeptide(Pdgfd)	-0.561035
Rack1	receptor for activated C kinase 1(Rack1)	1.56605
Ret	ret proto-oncogene(Ret)	-0.284101
Sema3e	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3E(Sema3e)	-0.349043
Sema3f	sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3F(Sema3f)	0.365773
Sema4b	sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4B(Sema4b)	0.206854
Cell cycle		
Symbol	Gene name	Log2 (fold change)
Bub1	BUB1, mitotic checkpoint serine/threonine kinase(Bub1)	0.446547
Bub1b	BUB1B, mitotic checkpoint serine/threonine kinase(Bub1b)	0.230577
Cdc14a	CDC14 cell division cycle 14A(Cdc14a)	0.264674
Cables1	CDK5 and Abl enzyme substrate 1(Cables1)	-0.281238

Dbf4	DBF4 zinc finger(DbF4)	0.281871
Fbxo5	F-box protein 5(Fbxo5)	0.32071
Fancd2	Fanconi anemia, complementation group D2(Fancd2)	0.242582
Hjurp	Holliday junction recognition protein(Hjurp)	0.274537
Mad2l1	MAD2 mitotic arrest deficient-like 1(Mad2l1)	0.23892
Nek3	NIMA (never in mitosis gene a)-related expressed kinase 3(Nek3)	0.481955
Nek4	NIMA (never in mitosis gene a)-related expressed kinase 4(Nek4)	-0.209945
Phf13	PHD finger protein 13(Phf13)	-0.239565
Spc24	SPC24, NDC80 kinetochore complex component, homolog (S. cerevisiae)(Spc24)	0.302314
Mki67	antigen identified by monoclonal antibody Ki 67(Mki67)	0.323317
Aspm	asp (abnormal spindle)-like, microcephaly associated (Drosophila)(Aspm)	0.255128
Birc5	baculoviral IAP repeat-containing 5(Birc5)	0.315857
Brinp1	bone morphogenic protein/retinoic acid inducible neural specific 1(Brinp1)	-0.273883
Cdc20	cell division cycle 20(Cdc20)	0.353063
Cdc6	cell division cycle 6(Cdc6)	0.476019
Cdca5	cell division cycle associated 5(Cdca5)	0.531707
Cntrob	centrobin, centrosomal BRCA2 interacting protein(Cntrob)	0.254391
Cenpt	centromere protein T(Cenpt)	0.307368
Chek1	checkpoint kinase 1(Chek1)	0.258348
Chaf1b	chromatin assembly factor 1, subunit B (p60)(Chaf1b)	0.557127
Clspn	claspin(Clspn)	0.324617
Ccna2	cyclin A2(Ccna2)	0.261407
Ccnb2	cyclin B2(Ccnb2)	0.257691
Ccnd1	cyclin D1(Ccnd1)	0.18533
Ccnd2	cyclin D2(Ccnd2)	0.353105
Ccne1	cyclin E1(Ccne1)	-0.260069
Cdkn1c	cyclin-dependent kinase inhibitor 1C (P57)(Cdkn1c)	-0.539388
Ckap2	cytoskeleton associated protein 2(Ckap2)	0.243045
Ect2	ect2 oncogene(Ect2)	0.250271
Esco2	establishment of sister chromatid cohesion N-acetyltransferase 2(Espo2)	0.321325
Ercc6l	excision repair cross-complementing rodent repair deficiency complementation group 6 like(Ercc6l)	0.335378
Fam83d	family with sequence similarity 83, member D(Fam83d)	0.45442
Kif20b	kinesin family member 20B(Kif20b)	0.248936
Kif23	kinesin family member 23(Kif23)	0.460478
Kn1l	kinetochore scaffold 1(Kn1l)	0.52736
Lmln	leishmanolysin-like (metallopeptidase M8 family)(Lmln)	0.211086

Mcm2	minichromosome maintenance complex component 2(Mcm2)	0.233332
Mcm5	minichromosome maintenance complex component 5(Mcm5)	0.271372
Mcm7	minichromosome maintenance complex component 7(Mcm7)	0.316533
Mapk12	mitogen-activated protein kinase 12(Mapk12)	-0.587148
Msh2	mutS homolog 2(Msh2)	-0.213602
Mybl2	myeloblastosis oncogene-like 2(Mybl2)	0.389053
Ncaph	non-SMC condensin I complex, subunit H(Ncaph)	0.460362
Ncapd3	non-SMC condensin II complex, subunit D3(Ncapd3)	0.226671
Pttg1	pituitary tumor-transforming gene 1(Pttg1)	-0.268946
Plk1	polo-like kinase 1(Plk1)	0.270134
Prc1	protein regulator of cytokinesis 1(Prc1)	0.250565
Rack1	receptor for activated C kinase 1(Rack1)	1.56605
Rgs2	regulator of G-protein signaling 2(Rgs2)	-0.201031
Txnip	thioredoxin interacting protein(Txnip)	-0.378476
Usp2	ubiquitin specific peptidase 2(Usp2)	-0.219692
Usp22	ubiquitin specific peptidase 22(Usp22)	0.229866
Zfp830	zinc finger protein 830(Zfp830)	-0.295318
Cell division		
Symbol	Gene name	Log2 (fold change)
Bub1	BUB1, mitotic checkpoint serine/threonine kinase(Bub1)	0.446547
Bub1b	BUB1B, mitotic checkpoint serine/threonine kinase(Bub1b)	0.230577
Cdc14a	CDC14 cell division cycle 14A(Cdc14a)	0.264674
Cables1	CDK5 and Abl enzyme substrate 1(Cables1)	-0.281238
Fbxo5	F-box protein 5(Fbxo5)	0.32071
Mad2l1	MAD2 mitotic arrest deficient-like 1(Mad2l1)	0.23892
Nek3	NIMA (never in mitosis gene a)-related expressed kinase 3(Nek3)	0.481955
Nek4	NIMA (never in mitosis gene a)-related expressed kinase 4(Nek4)	-0.209945
Phf13	PHD finger protein 13(Phf13)	-0.239565
Spc24	SPC24, NDC80 kinetochore complex component, homolog (S. cerevisiae)(Spc24)	0.302314
Aspm	asp (abnormal spindle)-like, microcephaly associated (Drosophila)(Aspm)	0.255128
Birc5	baculoviral IAP repeat-containing 5(Birc5)	0.315857
Cdc20	cell division cycle 20(Cdc20)	0.353063
Cdc6	cell division cycle 6(Cdc6)	0.476019
Cdca5	cell division cycle associated 5(Cdca5)	0.531707
Cntrob	centrobin, centrosomal BRCA2 interacting protein(Cntrob)	0.254391
Cenpt	centromere protein T(Cenpt)	0.307368
Ccna2	cyclin A2(Ccna2)	0.261407
Ccnb2	cyclin B2(Ccnb2)	0.257691

Ccnd1	cyclin D1(Ccnd1)	0.18533
Ccnd2	cyclin D2(Ccnd2)	0.353105
Ccne1	cyclin E1(Ccne1)	-0.260069
Cdk3-ps	cyclin-dependent kinase 3, pseudogene(Cdk3-ps)	0.61584
Dynlt1b	dynein light chain Tctex-type 1B(Dynlt1b)	-0.83493
Ect2	ect2 oncogene(Ect2)	0.250271
Ercc6l	excision repair cross-complementing rodent repair deficiency complementation group 6 like(Ercc6l)	0.335378
Fam83d	family with sequence similarity 83, member D(Fam83d)	0.45442
Kif14	kinesin family member 14(Kif14)	0.288734
Kif20b	kinesin family member 20B(Kif20b)	0.248936
Kif23	kinesin family member 23(Kif23)	0.460478
Knl1	kinetochore scaffold 1(Knl1)	0.52736
Lmln	leishmanolysin-like (metallopeptidase M8 family)(Lmln)	0.211086
Mcm5	minichromosome maintenance complex component 5(Mcm5)	0.271372
Ncaph	non-SMC condensin I complex, subunit H(Ncaph)	0.460362
Ncapd3	non-SMC condensin II complex, subunit D3(Ncapd3)	0.226671
Pttg1	pituitary tumor-transforming gene 1(Pttg1)	-0.268946
Plk1	polo-like kinase 1(Plk1)	0.270134
Prc1	protein regulator of cytokinesis 1(Prc1)	0.250565
Zfp830	zinc finger protein 830(Zfp830)	-0.295318
Cellular response to mechanical stimulus		
Symbol	Gene name	Log2 (fold change)
Cradd	CASP2 and RIPK1 domain containing adaptor with death domain(Cradd)	-0.40881
Agt	angiotensinogen (serpin peptidase inhibitor, clade A, member 8)(Agt)	-0.644347
Cnn2	calponin 2(Cnn2)	-0.858707
Casp2	caspase 2(Casp2)	0.310271
Cav1	caveolin 1, caveolae protein(Cav1)	-0.33376
Chek1	checkpoint kinase 1(Chek1)	0.258348
Cyba	cytochrome b-245, alpha polypeptide(Cyba)	-0.513863
Egfr	epidermal growth factor receptor(Egfr)	0.283762
Gja1	gap junction protein, alpha 1(Gja1)	-0.196478
Map3k1	mitogen-activated protein kinase kinase kinase 1(Map3k1)	0.19665
Nos1	nitric oxide synthase 1, neuronal(Nos1)	0.450857
Kcnj2	potassium inwardly-rectifying channel, subfamily J, member 2(Kcnj2)	-0.526151
Ptgs2	prostaglandin-endoperoxide synthase 2(Ptgs2)	-0.380668
Tlr3	toll-like receptor 3(Tlr3)	-0.27512
Mitotic nuclear division		
Symbol	Gene name	Log2 (fold)

		change)
Bub1	BUB1, mitotic checkpoint serine/threonine kinase(Bub1)	0.446547
Bub1b	BUB1B, mitotic checkpoint serine/threonine kinase(Bub1b)	0.230577
Fbxo5	F-box protein 5(Fbxo5)	0.32071
Gem	GTP binding protein (gene overexpressed in skeletal muscle)(Gem)	-0.263064
Mad2l1	MAD2 mitotic arrest deficient-like 1(Mad2l1)	0.23892
Nek3	NIMA (never in mitosis gene a)-related expressed kinase 3(Nek3)	0.481955
Nek4	NIMA (never in mitosis gene a)-related expressed kinase 4(Nek4)	-0.209945
Phf13	PHD finger protein 13(Phf13)	-0.239565
Spc24	SPC24, NDC80 kinetochore complex component, homolog (S. cerevisiae)(Spc24)	0.302314
Aspm	asp (abnormal spindle)-like, microcephaly associated (Drosophila)(Aspm)	0.255128
Birc5	baculoviral IAP repeat-containing 5(Birc5)	0.315857
Cdc20	cell division cycle 20(Cdc20)	0.353063
Cdc6	cell division cycle 6(Cdc6)	0.476019
Cdca5	cell division cycle associated 5(Cdca5)	0.531707
Cenpt	centromere protein T(Cenpt)	0.307368
Ccna2	cyclin A2(Ccna2)	0.261407
Ccnb2	cyclin B2(Ccnb2)	0.257691
Cdk3-ps	cyclin-dependent kinase 3, pseudogene(Cdk3-ps)	0.61584
Dynlt1b	dynein light chain Tctex-type 1B(Dynlt1b)	-0.83493
Ercc6l	excision repair cross-complementing rodent repair deficiency complementation group 6 like(Ercc6l)	0.335378
Fam83d	family with sequence similarity 83, member D(Fam83d)	0.45442
Kif20b	kinesin family member 20B(Kif20b)	0.248936
Kif23	kinesin family member 23(Kif23)	0.460478
Knl1	kinetochore scaffold 1(Knl1)	0.52736
Lmln	leishmanolysin-like (metallopeptidase M8 family)(Lmln)	0.211086
Map2k1	mitogen-activated protein kinase kinase 1(Map2k1)	-0.23032
Ncaph	non-SMC condensin I complex, subunit H(Ncaph)	0.460362
Ncapd3	non-SMC condensin II complex, subunit D3(Ncapd3)	0.226671
Pttg1	pituitary tumor-transforming gene 1(Pttg1)	-0.268946
Plk1	polo-like kinase 1(Plk1)	0.270134
Zfp830	zinc finger protein 830(Zfp830)	-0.295318
Regulation of G-protein coupled receptor protein signaling pathway		
Symbol	Gene name	Log2 (fold change)
Gpsm1	G-protein signalling modulator 1 (AGS3-like, C. elegans)(Gpsm1)	0.267821

Adcyap1	adenylate cyclase activating polypeptide 1(Adcyap1)	-0.364772
Arrb1	arrestin, beta 1(Arrb1)	0.191243
Dynlt1b	dynein light chain Tctex-type 1B(Dynlt1b)	-0.83493
Homer2	homer scaffolding protein 2(Homer2)	0.246626
Ramp1	receptor (calcitonin) activity modifying protein 1(Ramp1)	-0.319947
Ramp2	receptor (calcitonin) activity modifying protein 2(Ramp2)	-0.524774
Ramp3	receptor (calcitonin) activity modifying protein 3(Ramp3)	-0.585706
Rgs2	regulator of G-protein signaling 2(Rgs2)	-0.201031
Positive regulation of GTPase activity		
Symbol	Gene name	Log2 (fold change)
Dennd1b	DENN/MADD domain containing 1B(Dennd1b)	0.226369
Rasgrp1	RAS guanyl releasing protein 1(Rasgrp1)	-0.302872
Rapgef2	Rap guanine nucleotide exchange factor (GEF) 2(Rapgef2)	0.18849
Rapgef3	Rap guanine nucleotide exchange factor (GEF) 3(Rapgef3)	0.305563
S100a10	S100 calcium binding protein A10 (calpastatin)(S100a10)	-0.323893
Srgap2	SLIT-ROBO Rho GTPase activating protein 2(Srgap2)	0.206012
Adcyap1	adenylate cyclase activating polypeptide 1(Adcyap1)	-0.364772
Afdn	afadin, adherens junction formation factor(Afdn)	0.202055
Bcas3	breast carcinoma amplified sequence 3(Bcas3)	-0.206325
Cx3cl1	chemokine (C-X3-C motif) ligand 1(Cx3cl1)	-0.186984
Ect2	ect2 oncogene(Ect2)	0.250271
Lamtor5	late endosomal/lysosomal adaptor, MAPK and MTOR activator 5(Lamtor5)	-0.245778
Map2k1	mitogen-activated protein kinase kinase 1(Map2k1)	-0.23032
Pkp4	plakophilin 4(Pkp4)	-0.250498
Rgl3	ral guanine nucleotide dissociation stimulator-like 3(Rgl3)	-0.361658
Rack1	receptor for activated C kinase 1(Rack1)	1.56605
Rgs2	regulator of G-protein signaling 2(Rgs2)	-0.201031
Rgs4	regulator of G-protein signaling 4(Rgs4)	-0.230529
Rgs10	regulator of G-protein signalling 10(Rgs10)	-0.300101
Thy1	thymus cell antigen 1, theta(Thy1)	-0.227688
Positive chemotaxis		
Symbol	Gene name	Log2 (fold change)
Bmp4	bone morphogenetic protein 4(Bmp4)	-0.338676
Lgals3	lectin, galactose binding, soluble 3(Lgals3)	-0.512762
Met	met proto-oncogene(Met)	0.198161
Plxnb3	plexin B3(Plxnb3)	-0.774452
Scrib	scribbled planar cell polarity(Scrib)	0.296674
Scg2	secretogranin II(Scg2)	-0.214127
positive regulation of endothelial cell proliferation		
Symbol	Gene name	Log2 (fold

		change)
Bmp4	bone morphogenetic protein 4(Bmp4)	-0.338676
Cav1	caveolin 1, caveolae protein(Cav1)	-0.33376
Cyba	cytochrome b-245, alpha polypeptide(Cyba)	-0.513863
Egr3	early growth response 3(Egr3)	-0.337981
Hmgb2	high mobility group box 2(Hmgb2)	0.473187
Mydgf	myeloid derived growth factor(Mydgf)	-0.295379
Nr4a1	nuclear receptor subfamily 4, group A, member 1(Nr4a1)	-0.315837
Plxnb3	plexin B3(Plxnb3)	-0.774452
Prox1	prospero homeobox 1(Prox1)	-0.295314
Scg2	secretogranin II(Scg2)	-0.214127
Vip	vasoactive intestinal polypeptide(Vip)	-0.406533
Vash2	vasohibin 2(Vash2)	0.225852
Regulation of ion transmembrane transport		
Symbol	Gene name	Log2 (fold change)
Kcnip4	Kv channel interacting protein 4(Kcnip4)	-0.405868
Cacng3	calcium channel, voltage-dependent, gamma subunit 3(Cacng3)	-0.419447
Cacng4	calcium channel, voltage-dependent, gamma subunit 4(Cacng4)	0.234454
Cacng5	calcium channel, voltage-dependent, gamma subunit 5(Cacng5)	-0.447424
Clic4	chloride intracellular channel 4 (mitochondrial)(Clic4)	0.288359
Kcnv1	potassium channel, subfamily V, member 1(Kcnv1)	-0.401908
Kcnj2	potassium inwardly-rectifying channel, subfamily J, member 2(Kcnj2)	-0.526151
Kcnj9	potassium inwardly-rectifying channel, subfamily J, member 9(Kcnj9)	-0.268833
Kcnb2	potassium voltage gated channel, Shab-related subfamily, member 2(Kcnb2)	-0.275121
Kcnab1	potassium voltage-gated channel, shaker-related subfamily, beta member 1(Kcnab1)	-0.230488
Kcnf1	potassium voltage-gated channel, subfamily F, member 1(Kcnf1)	-0.379904
Kcng1	potassium voltage-gated channel, subfamily G, member 1(Kcng1)	-0.192533
Kcnh2	potassium voltage-gated channel, subfamily H (eag-related), member 2(Kcnh2)	-0.220063
Kcnh7	potassium voltage-gated channel, subfamily H (eag-related), member 7(Kcnh7)	-0.285739
Kcnq3	potassium voltage-gated channel, subfamily Q, member 3(Kcnq3)	-0.249528

Scn2b	sodium channel, voltage-gated, type II, beta(Scn2b)	-0.190638
Stom	stomatin(Stom)	-0.272398
Tmem109	transmembrane protein 109(Tmem109)	-0.231289
Response to estradiol		
Symbol	Gene name	Log2 (fold change)
Ets1	E26 avian leukemia oncogene 1, 5' domain(Ets1)	0.253717
Bmp7	bone morphogenetic protein 7(Bmp7)	0.244832
Cryab	crystallin, alpha B(Cryab)	-0.391796
Ccnd1	cyclin D1(Ccnd1)	0.18533
Gjb2	gap junction protein, beta 2(Gjb2)	-0.873347
Igfbp2	insulin-like growth factor binding protein 2(Igfbp2)	0.316157
Ifi27	interferon, alpha-inducible protein 27(Ifi27)	-0.447247
Mapk15	mitogen-activated protein kinase 15(Mapk15)	0.660586
Oxtr	oxytocin receptor(Oxtr)	0.267845
Ptgs2	prostaglandin-endoperoxide synthase 2(Ptgs2)	-0.380668
Ramp2	receptor (calcitonin) activity modifying protein 2(Ramp2)	-0.524774
Slc6a1	solute carrier family 6 (neurotransmitter transporter, GABA), member 1(Slc6a1)	0.201705
Tacr3	tachykinin receptor 3(Tacr3)	-0.345044
Txnip	thioredoxin interacting protein(Txnip)	-0.378476
Tfpi	tissue factor pathway inhibitor(Tfpi)	-0.683443